Fernandina and St. Augustine are both singularly exempt from epidemic influences, and at this season are apparently suitable for cases not in extreme condition. I have thoroughly explored the country around Gainesville for a considerable distance, and do not hesitate to recommend this region, which embraces the counties of Alachua, Marion, Sumter, Orange, and parts of Hernando, as in my opinion the most eligible section in the State.

The only drawback existing at present is a want of better accommodation, which difficulty, however, will be speedily overcome as soon as the influx of visitors in this direction warrants the outlay of capital. All necessary requirements for the sick can even now be obtained, and school facilities of a very high order exist, which make it a very desirable winter resort for weak and delicate children.

It is not my purpose to enter into detail as to the views entertained in regard to treatment, or, preferably, management of such cases. It is sufficient to remark that I believe that the influence of climate conjoined to personal prudence in regard to avoidance of draughts and adaptation of clothing, together with generous diet (in which I include cod-liver oil), and out-door exercise will accomplish all that can be done.

In concluding this very imperfect article, I cannot refrain from condemning the practice of sending patients out here to die.

Surely the science of medicine has progressed sufficiently far at this day to place it within the power of all who profess it to understand and appreciate the indications presented by the majority of patients seeking advice. When, therefore, the physical (I use the word in its most comprehensive sense) condition of patients indicates no reasonable chance for recovery, save them the terrible ordeal of death in a strange land away from home and friends. That recoveries take place from seemingly hopeless conditions is no argument for sending some out here who come, for to one recovery under such circumstances there are ten deaths. Send patients in the incipiency of their disease when possible, and when there is sufficient organic life remaining for nature to work upon, and there will be but little doubt that reasonable anticipations will be realized.

ART. XIV.—*Remarks on the Climatic Influence of Colorado in the Cure of Asthma, with a Review of a Large Number of Cases Reported by a Convention of Asthmatics, assembled at Denver, in December, 1873.* By W. R. WHITEHEAD, M.D., of Denver, Colorado, formerly of New York.

MANY physicians have, very properly, a distrust of popular efforts to establish the reputation of a particular climate for the cure of a certain disease. This distrust has sometimes been strengthened by the injudicious

or indiscriminate testimony offered by medical men. It is frequent to hear an exaggerated account given of the influence of climate, or of the peculiar virtues of a mineral water, for the eradication of a rebellious malady. It is not unimportant, therefore, that popular movements in medical matters should excite at least the careful scrutiny and attentive consideration of physicians, before they give an unrestricted acquiescence in utterances which are often quite as apt to be the expression of popular prejudices, or of interested motives, as of a discriminating and accurate interpretation of facts.

Medical science, like all other branches of knowledge, has sometimes made astonishing progress from the impetus given to the study of this science by the discovery of facts which have originated with those unfamiliar with medicine. Whatever scepticism may be entertained regarding the curative influence of climate on asthma, I have, after a most attentive examination of the cases which I propose to briefly review, abundantly satisfied myself that the climate of Colorado exercises a remarkable influence in the amelioration and cure of asthma. It is to be regretted, though, that the record of the above-mentioned cases did not receive a careful medical supervision. This, possibly, to some of the readers of this journal may appear somewhat remarkable, when it is known that the chairman of this convention of asthmatics was a medical practitioner and an asthmatic, who successfully sought relief from asthma in Colorado. This gentleman, however, has furnished a valuable statement of his own case, and testifies, also, to the relief which this climate afforded to his asthmatic son.

A few of the cases which are mentioned in the printed report of this convention were, at different times, patients under my care for other ailments than asthma. Through the courtesy of Mr. F. J. B. Crane, an active member of the committee on the publication of the report, I have not only been favoured with a copy of it, but have also been permitted, through his kind intercession, to make a physical examination of a considerable number of the asthmatics whose cases are recorded. The cases in the report are published in alphabetical order. Although it is probable that some of them are cases of dyspnœa, dependent on causes quite unconnected with asthma, yet the most of them clearly convey the idea of a spasmodic attack of difficult breathing, recurring in such a manner and under such circumstances as to unmistakably denote the disease known as asthma. However, a brief definition of asthma, descriptive of its distressing dyspnœa, of its paroxysmal recurrent or periodic attacks, of its frequently accompanying bronchitis, and loud wheezing, would give additional value to this report. This descriptive definition would call attention to the distinctive features of the asthmatic paroxysm, and possibly thus prevent some ailing people, affected with dyspnœa, not due to asthma, from seeking relief without advantage in the climate of Colorado.

In this short article on asthma I shall comment only on those cases which I have personally examined, although there are many in the report of the convention which are especially worthy of mention, and I regret that I have not had an opportunity to examine a larger number. I feel confident, however, that the number of cases which I have carefully examined are of sufficient interest to prominently draw attention to the valuable remedial effects of this climate on a most distressing and prevalent disease.

CASE I.—Mr. J. B. A., of Wisconsin, æt. 56, is the first whose case is reported by the Asthmatic Convention. The report of this case occupies three lines. Mr. A. called at my office about two weeks ago, and I had the pleasure to obtain a detailed statement of his condition. He has had asthma for fifteen years quite severely. He experienced some relief at St. Louis, Louisville, Ky., and at Cincinnati. Mr. A. arrived at Denver in September last, and obtained relief at once; however he commenced to feel better at Fort Kearney, on the Union Pacific Railroad. No gout or consumption in his family; he had shortness of breath while a boy, but was first taken with asthma at the age of twenty-five years, and has since always been more or less subject to colds and coughs. His asthmatic attacks frequently lasted two or three days and nights, and his easiest position was standing with his hands raised over his head; he expressed his difficulty of expiration by saying that he could "draw in more air than he could get out," and so great were his efforts to breathe during a paroxysm, that he not infrequently had involuntary discharges per rectum. He observed to me that he received more benefit from the use of stramonium than from any other remedy. I found marked sonority of the chest walls, and feebleness and indistinctness of the respiratory murmur under the clavicles and throughout the chest generally; sibilant inspiration at left base, and prolonged expiration near the upper right apex; heart sounds normal. He was always compelled at home to go to bed supperless, but can eat supper with impunity at Denver; nevertheless he has asthma at Denver occasionally, particularly when the air is slightly moist from the falling of snow in the mountains near this place; southerly winds always gave him relief, no matter if the air was damp. He generally had a profuse coryza, and wet several handkerchiefs during an asthmatic paroxysm. A lucifer-match lighted in an adjoining room would induce an attack. His eldest son, who is thirty years of age, has asthma. Mr. A. still has attacks of asthma at Denver three nights out of every four during the recent changes of the weather which we have had; but these attacks are not so severe as they were in other places, and, moreover, are readily controlled. He mentioned that he had relief often from a cup of strong coffee; that chloroform gave only temporary relief; that occasionally he had alleviation of his distressing symptoms from the use of ipecacuanha, or lobelia; but that this was quite uncertain. It will be perceived that Mr. A.'s case is notably typical of asthma.

CASE II.—Mr. F. J. B. C., æt. 53, is from Detroit, Mich. He arrived at Denver during the month of March, 1871. I have been personally acquainted with this gentleman at Denver for nearly a year, and no one is louder in his praise of the virtues of the climate of Colorado, in the relief of asthma, and he presents in his own person a signal example of the beneficial effects of this climate in the cure of this disease. He had

it for many years, and three weeks after his arrival at Denver he was greatly surprised, one morning, to find that he had missed his paroxysm. He returned to Detroit, and soon the disease reappeared; he came back to Denver in April, 1872, and after two weeks the asthma quit him, and he has since had no recurrence of it. He has travelled much in this country and in Europe, and has obtained no relief until he reached Colorado. A physical examination of his chest revealed the presence of chronic bronchitis and deep, sonorous ronchi throughout the chest; no unusual resonance of the chest. He occasionally expectorates rather copiously after coughing; sometimes is troubled with cough, but has no asthma.

CASE III.—Mr. J. H. E., of Denver, formerly of Broome County, New York, æt. about 55, is powerfully developed and robust; first had asthma in 1837. "He crossed the plains in 1864; after leaving Omaha lost the asthma, and has since enjoyed sound health and gained fifty pounds in weight. *He is unable to go east of the Missouri River without severe asthma.*" On examination of his chest I found the respiration to be normal; slight irregularity of cardiac rhythm, but of no significance; heart normal; an example of exuberant health.

CASE IV.—Mr. W. M. F., æt. 40, formerly of Albion, Mich. Suffered from asthma for about fifteen years. To use his own expression, "he could not get his breath;" he would smoke tobacco, salt and ground coffee, equal parts of each, which gave him more relief during a paroxysm than anything else. Persons could hear him wheeze across a room, and his attacks of dyspnœa would cease temporarily after a copious expectoration. To go into a mill, or breathe dust, would incite an attack of spasmodic dyspnœa. His mother died of consumption. He had typhoid fever in 1863, and has since been less robust. In March, 1873, he had pleurisy, and in May Dr. Jno. P. Stoddard, of Albion, Mich., withdrew three pints of matter from his left side. The pleural cavity was washed out with carbolized water, and he made a good recovery.

Mr. F. has been in Colorado about nine weeks, and he has had no recurrence of asthma during this time. On examination of his chest, I found that there was marked dulness of the percussion sound at the left base, with diminution of the respiratory murmur at this part; there was supplementary respiration, and rude, prolonged expiration in the right lung at its base and central portion. In the interscapular spaces the expiration was prolonged, being equal to the inspiration. In the supra-scapular fossæ and under the right clavicle the expiration was prolonged and rude. Under the left clavicle there was a feeble respiratory sound, but I was unable to detect any appreciable dulness of the percussion sound on this side as compared with the other.

CASE V.—Mr. J. H., of Denver, æt. about 30, "arrived in Colorado May, 1871. Previously he had asthma twelve or thirteen years, often very severely. He received some relief at St. Paul, Minn., and considerable amelioration of his symptoms at Nashville, Tenn., and at New Orleans; but he never found such instantaneous or permanent relief as in Colorado." Through the courtesy of Dr. W. H. Thacker, of Denver, I was permitted to examine Mr. H.'s chest, and discovered sonorous ronchi at the apices of the lungs, and sibilant râles and prolonged expiration at the right base; also marked sonority on percussion of the chest at this part.

CASE VI.—Mr. D. M. J., formerly of Mt. Carmel, Ill., æt. 26,

suffered from asthma about six years, so as to render him unfit for business. Arrived in Colorado January, 1873, and obtained immediate relief. He had pneumonia about three years ago. When he was a child would wheeze when he took cold, but had no distressing attacks of asthma until about nineteen years of age. No antecedents of consumption or gout; his maternal aunt and uncle were asthmatic. When he arrived at about one hunderd miles from Denver, while on his way to this city, he suddenly obtained relief from his asthmatic symptoms; he has had slight attacks at Denver. One month after his arrival he was entirely rid of asthma, and rapidly gained in flesh and strength. He returned to the East, and on arriving at Grand Island, which is at an elevation of about twelve hundred feet above sea level, and is on the Union Pacific Railway, he had a recurrence of asthma. At Chicago he was severely affected, and, during three weeks that he remained in that city, he lost in flesh and strength. On his return to Denver the asthma left him for about two weeks, when it recurred, and he has very slight attacks every night. He says that he does not wish to quit Colorado, because he has had more relief here than elsewhere, and is improving all the time. His attacks before he came to this territory lasted about two days, and he was most of the time seated in a chair and leaning forward. Ipecac or tincture of lobelia would give him relief for an hour or two only; nitre afforded most relief; chloroform quieted him for a short period; strong coffee affords him relief here when he has some wheezing; irregularities of diet, as a late meal, would bring on an attack. Turkish baths gave considerable immunity from attacks; these baths improved his general health, and he was generally free from asthma when he took them every day. I found some prominence of the anterior portions of the chest under the clavicles; exaggerated resonance of these portions, and of the chest generally on percussion; diminution of the respiratory murmur, and sonorous and sibilant ronchi of a shifting character throughout the chest, also prolonged expiratory sibilus in different parts of it; heart normal.

CASE VII.—Mr. D. G P., merchant, æt. 40. "Arrived at Denver in the spring of 1861; during the summer had asthma slightly, but soon got rid of it, and has never had it since while in Colorado; always has asthma when he goes East for goods." Mr. P. is a native of Vermont, and had asthma at the age of fourteen years; his attacks, when they were very severe, lasted, with slight intermissions, from two to three weeks. The first appearance of the disease was preceded by a severe cold; there were no dyspeptic irregularities which incited the asthmatic paroxysm, but it was always induced by a cold. He says that he had pneumonia about eight years ago, and eight or ten days after the commencement of his illness he had a copious hemorrhage from his lungs; he visited Minnesota, and he observes that, while in that State, he was as free from asthma during the summer as in Colorado, but in Minnesota during the winter the disease returned. The physical signs show: marked sonority of the chest on percussion; however, slight relative dulness in the right supra-clavicular space, with prolonged expiration under right clavicle; diminution of the respiratory murmur in apices; sibilus on coughing in interscapular spaces, and throughout middle and upper parts of lungs; respiratory murmur heard at base.

CASE VIII.—Mrs. J. H. P., æt. 26. This lady was under my care, several months ago, for a mild attack of enteric fever. She has had asthma for about five years; it was not very severe at first, but has been

getting worse. She arrived in Colorado three years ago. During a residence of about two years at Georgetown, Colorado, which city is eight thousand four hundred and fifty feet above the sea level, and three thousand two hundred feet higher than Denver, she was exempt from the disease; she has occasionally slight attacks of asthma at Denver, but they are much less severe than those she had in her native State of Illinois. I examined her chest about a week ago, and a few hours after a "wheezing spell," which she stated lasted about three hours. She has emphysema, as shown by the exterior appearance of the chest walls; they are markedly resonant on percussion; there are sibilant râles near the right base, and deep bass ronchi under left clavicle, prolonged expiration near base of lungs, also under right clavicle; slight relative dulness under left clavicle; heart sounds normal.

CASE IX.—W. S., æt. 41, formerly of Kidder, Missouri; blacksmith. Came to Colorado in June, 1873. He has had asthma for about three years. He took a severe cold, which was followed by an asthmatic paroxysm; the first one occurred in summer; it had been raining a good deal; the cellar of his house was full of water, and he attributed his cold to the dampness of his abode; he was first attacked suddenly about eleven o'clock at night, and each successive paroxysm was very severe.

Sonority of chest walls; feebleness of the respiratory murmur at base; prolonged rude expiration at posterior central portions of chest; prolonged expiration at apices, supplementary under right clavicle; bass sonorous ronchi on coughing. He has asthma occasionally at Denver; he had an attack about a week ago, but his attacks are much lighter, not a third so bad as in Missouri, and he further says that, when he has a bad cold at Denver, he has not such severe wheezing as formerly; heart sounds normal.

CASE X.—Mr. E. L. S., æt. 18, formerly of Des Moines, Iowa. Has had asthma since he was three years old. Chest walls resonant; prolonged expiration in supraspinal fossæ, with sibilus on coughing; prolonged rude expiration in interscapular spaces, and under the clavicles the expiration is also prolonged; sibilant inspiration at base and central parts of the lungs on coughing; respiration supplementary at right base, and Mr. S. says he had pneumonia of left side; there is no appreciable dulness on percussion of this part; heart sounds normal; no consumptive or gouty antecedents; father had rheumatism. Mr. S. has heretofore had asthma in his native State of Iowa during harvest time, and the smell of hay always induced an attack until his arrival in Colorado. In this territory he on one occasion "stored away" a load of hay without the slightest symptoms of asthma; the dust from carpets formerly would bring on a paroxysm, but it was principally in summer he suffered, and not much during winter.

CASE XI.—Mr. B. F. W., of Denver, Superintendent of the Western Union Telegraph Company. This gentleman has been in Colorado since 1863; he had severe attacks of asthma for a number of years before his arrival in this territory, and was relieved during his residence in it of the first twelve or fifteen months. For the last eight or nine years he has been nearly free from asthma, except when he goes East. When he gets to Salina, Kansas, or to the North Platte River, he has asthma. At Chicago he has it severely, and is not rid of it until he returns to Denver; however, Mr. W. occasionally has slight attacks of asthma in Colorado; he has no tubercular or gouty antecedents; there is exaggerated sonority

of the chest walls on percussion, and prolonged expiration near the base of the lungs. He says that the late Dr. Gerhard, of Philadelphia, several years ago, told him that he had emphysema.

CASE XII.—Mr. W., formerly of Syracuse, New York, æt. 37, consulted me Sept. 20, 1873. Mr. W. is tall, somewhat emaciated, and pale. Last year he wintered in Florida. He has for a number of years been troubled with cough and occasional paroxysms of dyspnœa. Mr. W. arrived in Colorado in August, and from the time of his arrival until I saw him, during the following month, he had one or two attacks of distressed breathing; these were induced by visiting a flour-mill; his chest walls are full and rather round, and yield a marked sonority on percussion; rude prolonged expiration in different parts of the chest, especially under clavicles, without relative dulness, however; deep bass sonorous râles throughout the chest.

Laryngoscopic inspection of the throat revealed an injected appearance of the epiglottis and arytenoid cartilages. Mr. W. is able to control the movements of his pharyngeal and palate muscles so well that his vocal cords can, with great facility and distinctness, be exhibited by the use of the laryngeal mirror; there was not that paleness of the laryngeal mucous membrane I expected to find; he has cold very often, and expectorates a great deal. When he catches cold his expectoration at first is watery, then whitish tenacious mucus, and finally yellow sputa; heart normal.

I have examined other cases reported by this convention of asthmatics, but I hope that the dozen cases recorded in this communication will be enough to show the importance of this popular movement to the most sceptical and exacting clinician.

It is to be regretted that the curative influence on asthma of this climate has not heretofore conspicuously attracted the attention of the medical profession. I know of no important paper, or indeed of any, that has appeared in our periodical medical literature on this subject. I ask indulgence for this brief and necessarily hastily prepared article. The subject is one that has greatly interested me, but a more extended experience with the climatic influences of Colorado on asthma, pulmonary consumption, and some other diseases, may permit me in future to have more accurate views on some points of importance that are at present unanswered, at least as regards the climate of Colorado.

This territory is attracting considerable attention as a resort for consumptives. In the earlier stages of consumption, the beneficial effects of the dry air and generally pleasant climate in and near Denver are manifestly apparent in the rapidly improved health of this class of invalids. It is proper, however, to remark that I have had under medical treatment, not to exceed, seventy cases of consumption during my residence at Denver, which is only sixteen months since I left New York; but during this time my observation of the climatic influences of Colorado has been most diligent and attentive.

I believe, with Gueneau de Mussy,[1] that there is a remarkable reciprocal influence between pulmonary tuberculosis and asthma; and as these two diseases are benefited or cured by a residence in Colorado, it would be desirable and interesting to study their relations to each other as affected by this climate.

Gueneau de Mussy observes that there is an antagonism between the two diseases. In some cases, when they coexist, if the asthmatic paroxysms become more frequent or more severe, there is an amelioration of the symptoms of consumption, and the opposite also frequently obtains. From this point of view the study of the influence of the climate of Colorado on asthma is peculiarly interesting.

I should not omit to mention that asthmatics with valvular disease of the heart, or with advanced phthisis, will not be benefited by a residence in the high altitudes of Colorado; indeed, the best place for patients with advanced phthisis is home. It will be observed, from some of the cases that I have reported, that relief from the asthmatic paroxysms was obtained immediately on reaching a sufficient altitude in Colorado; as, for example, the altitude of Denver, which is five thousand two hundred feet above sea level. In other cases a residence of several months, or a longer time, was required. In Case 8 it will be noticed that a higher altitude than that of Denver afforded exemption from the disease. It will also be observed that, during the winter and early spring months, there were more apt to be some manifestations of asthma in those not entirely relieved.

There are very few cases of asthma uncomplicated with emphysema, and a considerable number have some tubercular complications, or pneumonic induration of the lung; and it is singularly inappropriate to find the following resolutions appended to the report of this convention of asthmatics:—

"Whereas, Said asthmatics have called upon the Medical Association of Denver to express their views on this subject, formed from long residence in the territory and extended observation; it is therefore

"*Resolved*, That, in the opinion of the above Medical Association, the climate of Colorado, in and about the range of the Rocky Mountains, has a wonderful curative power over asthma; that nearly all such patients coming into this climate are relieved, at least so long as they remain here, and that all, if not entirely relieved, are sooner or later benefited, *with the exception of those cases dependent on or complicated with organic disease of the heart or lungs.*"

These restrictions would exclude many asthmatics who have been signally benefited or cured by a residence in Colorado, and it requires neither a long residence nor an extended observation to be aware of this.

January 27, 1874.

[1] See Arch. Gén. de Médecine, November, 1863, p. 513.